SEQUENCE LISTING

- (1) GENERAL INFORMATION
- (i) APPLICANT: Hillman, Jennifer L. Shah, Purvi Corley, Neil C.
- (ii) TITLE OF THE INVENTION: HUMAN PEROXISOMAL THIOESTERASE
- (iii) NUMBER OF SEQUENCES: 4
- (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Incyte Pharmaceuticals, Inc.
 - (B) STREET: 3174 Porter Drive
 - (C) CITY: Palo Alto
 - (D) STATE: CA
 - (E) COUNTRY: USA
 - (F) ZIP: 94304
- (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Diskette
 - (B) COMPUTER: IBM Compatible
 - (C) OPERATING SYSTEM: DOS
 - (D) SOFTWARE: FastSEQ for Windows Version 2.0
- (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: To Be Assigned
 - (B) FILING DATE: Filed Herewith
- (vii) PRIOR APPLICATION DATA:
- (A) APPLICATION NUMBER:
- (B) FILING DATE:
- (viii) ATTORNEY/AGENT INFORMATION:

 - (A) NAME: Billings, Lucy J.(B) REGISTRATION NUMBER: 36,749
 - (C) REFERENCE/DOCKET NUMBER: PF-0293 US
- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: 415-855-0555
 - (B) TELEFAX: 415-845-4166
 - (2) INFORMATION FOR SEQ ID NO:1:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 311 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (vii) IMMEDIATE SOURCE:
 - (A) LIBRARY: BRAINOT09
 - (B) CLONE: 2150905
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Met Gly Arg Ala Val Ala Thr Ala Ala Leu Pro Pro Gly Asp Leu Arg 15 10

Ser Val Leu Val Thr Thr Val Leu Asn Leu Glu Pro Leu Asp Glu Asp 25

Leu Phe Arg Gly Arg His Tyr Trp Val Pro Ala Lys Arg Leu Phe Gly



Gly Gln Ile Val Gly Gln Ala Leu Val Ala Ala Lys Ser Val Ser 55 Glu Asp Val His Val His Ser Leu His Cys Tyr Phe Val Arg Ala Gly 70 75 Asp Pro Lys Leu Pro Val Leu Tyr Gln Val Glu Arg Thr Arg Thr Gly 85 90 Ser Ser Phe Ser Val Arg Ser Val Lys Ala Val Gln His Gly Lys Pro 100 105 Ile Phe Ile Cys Gln Ala Ser Phe Gln Gln Ala Gln Pro Ser Pro Met 115 120 125 Gln His Gln Phe Ser Met Pro Thr Val Pro Pro Pro Glu Glu Leu Leu 135 140 Asp Cys Glu Thr Leu Ile Asp Gln Tyr Leu Arg Asp Pro Asn Leu Gln 150 155 Lys Arg Tyr Pro Leu Ala Leu Asn Arg Ile Ala Ala Gln Glu Val Pro 165 170 Ile Glu Ile Lys Pro Val Asn Pro Ser Pro Leu Ser Gln Leu Gln Arg 180 185 190 Met Glu Pro Lys Gln Met Phe Trp Val Arg Ala Arg Gly Tyr Ile Gly 195 200 205 Glu Gly Asp Met Lys Met His Cys Cys Val Ala Ala Tyr Ile Ser Asp 215 220 Tyr Ala Phe Leu Gly Thr Ala Leu Leu Pro His Gln Trp Gln His Lys 230 235 Val His Phe Met Val Ser Leu Asp His Ser Met Trp Phe His Ala Pro 245 250 Phe Arg Ala Asp His Trp Met Leu Tyr Glu Cys Glu Ser Pro Trp Ala 260 265 270 Gly Gly Ser Arg Gly Leu Val His Gly Arg Leu Trp Arg Gln Asp Gly 280 285 Val Leu Ala Val Thr Cys Ala Gln Glu Gly Val Ile Arg Val Lys Pro 295 Gln Val Ser Glu Ser Lys Leu 310

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 1098 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (vii) IMMEDIATE SOURCE:
 - (A) LIBRARY: BRAINOT09
 - (B) CLONE: 2150905

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

CAGCATTGAA	CTAGATGTCG	TCCCCGCAGG	CCCCAGAAGA	TGGGCAGGGC	TGTGGCGACC	60
GCGGCGCTTC	CCCCTGGGGA	CCTCCGTAGC	GTCTTGGTCA	CGACCGTGCT	CAACCTCGAG	120
CCGCTGGACG	AGGATCTCTT	CAGAGGAAGG	CATTACTGGG	TACCGGCCAA	GAGGCTGTTT	180
	TCGTGGGCCA			AGTCTGTGAG		240
CACGTGCACT	CCCTGCACTG	CTACTTTGTT	CGGGCAGGGG	ACCCGAAGCT	GCCAGTACTG	300
			AGCTTCTCGG			360
			GCCTCCTTCC			420
ATGCAGCACC	AGTTCTCCAT	GCCCACTGTG	CCACCACCAG	AAGAGCTGCT	TGACTGTGAG	480
			AACCTCCAAA			540
AACCGAATTG	CTGCTCAGGA	GGTCCCCATT	GAGATCAAGC	CAGTAAACCC	ATCCCCCCTG	600
			ATGTTCTGGG			660
GGCGAGGGCG	ACATGAAGAT	GCACTGCTGC	GTGGCCGCCT	ATATCTCCGA	CTATGCCTTC	720
TTGGGCACTG	CACTGCTGCC	TCACCAGTGG	CAGCACAAGG	TGCACTTCAT	GGTCTCACTG	780
GACCATTCCA	TGTGGTTCCA	CGCCCCTTC	CGAGCTGACC	ACTGGATGCT	CTATGAATGC	840
GAGAGCCCCT	GGGCCGGTGG	CTCTCGGGGG	CTGGTCCATG	GGCGGCTGTG	GCGTCAGGAT	900
GGAGTCCTAG	CTGTGACCTG	TGCCCAGGAG	GGCGTGATCC	GAGTGAAGCC	CCAGGTCTCA	960
GAGAGCAAGC	TGTAGCCAGA	GGTACCAGCT	TCGCCTGGGG	CTTCAAGAAC	CTCCCATCTA	1020

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TCCCCATTCC TGAGACAGGA GTTACAGTCC CTTTTGGCCC TCACATCCAA TAAAGAGACT GATACCACTG GAAAAAAA

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 286 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (vii) IMMEDIATE SOURCE:
 - (A) LIBRARY: GenBank
 - (B) CLONE: 147932
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

Met 1	Ser	Gln	Ala	Leu 5	Lys	Asn	Leu	Leu	Thr 10	Leu	Leu	Asn	Leu	Glu 15	Lys
Ile	Glu	Glu	Gly 20	Leu	Phe	Arg	Gly	Gln 25	Ser	Glu	Asp	Leu	Gly 30	Leu	Arg
Gln	Val	Phe 35	Gly	Gly	Gln	Val	Val 40	Gly	Gln	Ala	Leu	Tyr 45	Ala	Ala	Lys
Glu	Thr 50	Val	Pro	Glu	Glu	Arg 55	Leu	Val	His	Ser	Phe 60	His	Ser	Туr	Phe
Leu 65	Arg	Pro	Gly	Asp	Ser 70	Lys	Lys	Pro	Ile	Ile 75	Tyr	Asp	Val	Glu	Thr 80
Leu	Arg	Asp	Gly	Asn 85	Ser	Phe	Ser	Ala	Arg 90	Arg	Val	Ala	Ala	Ile 95	Gln
Asn	Gly	Lys	Pro 100	Ile	Phe	Туr	Met	Thr 105	Ala	Ser	Phe	Gln	Ala 110	Pro	Glu
	-	115	Glu			_	120					125			_
Gly	Leu 130	Pro	Ser	Glu	Thr	Gln 135	Ile	Ala	Gln	Ser	Leu 140	Ala	His	Leu	Leu
Pro 145	Pro	Val	Leu	Lys	Asp 150	Lys	Phe	Ile	Cys	Asp 155	Arg	Pro	Leu	Glu	Val 160
Arg	Pro	Val	Glu	Phe 165	His	Asn	Pro	Leu	Lys 170	Gly	His	Val	Ala	Glu 175	Pro
His	Arg	Gln	Val 180	Trp	Ile	Arg	Ala	Asn 185	Gly	Ser	Val	Pro	Asp 190	Asp	Leu
Arg	Val	His 195	Gln	Tyr	Leu	Leu	Gly 200	Tyr	Ala	Ser	Asp	Leu 205	Asn	Phe	Leu
Pro	Val 210	Ala	Leu	Gln	Pro	His 215	G1y	Ile	Gly	Phe	Leu 220	Glu	Pro	Gly	Ile
Gln 225	Ile	Ala	Thr	Ile	Asp 230	His	Ser	Met	Trp	Phe 235	His	Arg	Pro	Phe	Asn 240
Leu	Asn	Glu	Trp	Leu 245	Leu	Tyr	Ser	Va1	Glu 250	Ser	Thr	Ser	Ala	Ser 255	Ser
Ala	Arg	Gly	Phe 260	Val	Arg	Gly	Glu	Phe 265	Tyr	Thr	Gln	Asp	Gly 270	Val	Leu
Val	Ala	Ser 275	Thr	Val	G1n	Glu	Gly 280	Val	Met	Arg	Asn	His 285	Asn		

(2) INFORMATION FOR SEQ ID NO:4:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 349 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (vii) IMMEDIATE SOURCE:
 - (A) LIBRARY: GenBank
 - (B) CLONE: 854594





(xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

Met 1	Ser	Ala	Ser	Lys 5	Met	Ala	Met	Ser	Asn 10	Leu	Glu	Lys	Ile	Leu 15	Glu
Leu	Val	Pro	Leu 20	Ser	Pro	Thr	Ser	Phe 25	Val	Thr	Lys	Tyr	Leu 30	Pro	Ala
Ala	Pro	Val 35	Gly	Ser	Lys	Gly	Thr 40	Phe	Gly	Gly	Thr	Leu 45	Val	Ser	Gln
Ser	Leu 50	Leu	Ala	Ser	Leu	His 55	Thr	Val	Pro	Leu	Asn 60	Phe	Phe	Pro	Thr
Ser 65	Leu	His	Ser	Tyr	Phe 70	Ile	Lys	Gly	Gly	Asp 75	Pro	Arg	Thr	Lys	Ile 80
Thr	Tyr	His	Val	Gln 85	Asn	Leu	Arg	Asn	Gly 90	Arg	Asn	Phe	Ile	His 95	Lys
Gln	Val	Ser	Ala 100	Tyr	Gln	His	Asp	Lys 105	Leu	Ile	Phe	Thr	Ser 110	Met	Ile
Leu	Phe	Ala 115	Val	Gln	Arg	Ser	Lys 120	Glu	His	Asp	Ser	Leu 125	Gln	His	Trp
Glu	Thr 130	Ile	Pro	Gly	Leu	Gln 135	Gly	Lys	Gln	Pro	Asp 140	Pro	His	Arg	Tyr
Glu 145	Glu	Ala	Thr	Ser	Leu 150	Phe	Gln	Lys	Glu	Val 155	Leu	Asp	Pro	Gln	Lys 160
Leu	Ser	Arg	Tyr	Ala 165	Ser	Leu	Ser	Asp	Arg 170	Phe	Gln	Asp	Ala	Thr 175	Ser
Met	Ser	Lys	Tyr 180	Val	Asp	Ala	Phe	Gln 185	Tyr	Gly	Val	Met	Glu 190	Tyr	Gln
		195	_		Phe	_	200		_			205			
Tyr	Phe 210	Val	Lys	Val	Arg	Pro 215	Pro	Ile	Thr	Thr	Val 220	Glu	His	Ala	Gly
Asp 225	Glu	Ser	Ser	Leu	His 230	Lys	His	His	Pro	Tyr 235	Arg	Ile	Pro	Lys	Ser 240
				245	Asp		_	_	250	_				255	_
		_	260	_	Leu			265			_		270		
		275	-		Ser		280				_	285			-
	290				His	295			_		300		_		
Asn 305	Pro	Arg	Ser	His	Trp 310	Asp	Lys	His	Leu	Val 315	Gln	Gly	Lys	Tyr	Phe 320
Asp	Thr	Gln	Ser	Gly 325	Arg	Ile	Met	Ala	Ser 330	Val	Ser	Gln	Glu	Gly 335	Tyr
Val	Val	Туr	Gly 340	Ser	Glu	Arg	Asp	Ile 345	Arg	Ala	Lys	Phe			